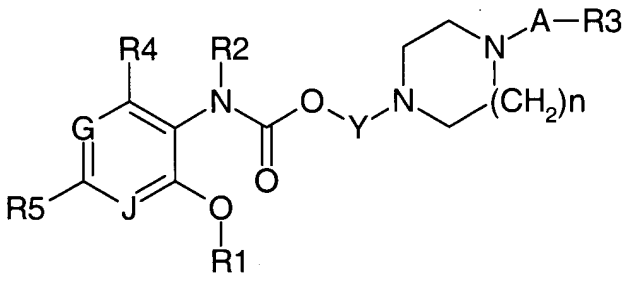
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-27. (canceled)

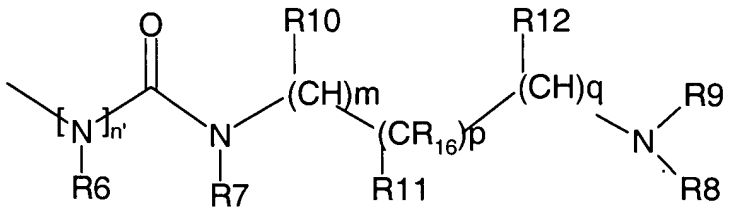
28. (new) A compound represented by general formula (I):

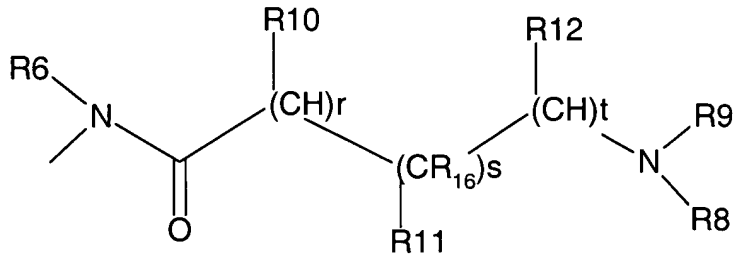


Formula (I)

in which :

- R_1 represents a lower alkyl, aryl, halogenoalkyl or lower arylalkyl group,
- R_2 represents the hydrogen atom or a lower alkyl group,
- A represents an aryl or heterocycle group, said group possibly being substituted by a substituent other than R3,
- R_3 represents a group selected from among the following groups :





, NR_6COR_{13}, and $-(NR_6)_{n'}-CONR_7R_{13}$,

- the groups R_7-R_{12}, which are the same or different, represent the hydrogen atom, an aryl group, a heteroaryl group, a heterocycle group, an arylalkyl group, a heteroarylalkyl group, a heterocycloalkyl group, a lower alkyl group, a cycloalkyl group, an alkoxyalkyl group, an alkylaminoalkyl group, an alkyl-$COOR_{17}$ group,
- the groups R_7-R_{12}, taken two by two can additionally form, together with the linear chain supporting them, at least one ring saturated or not, such as in particular cycloalkyl, cycloalkylene, heterocycle,
- the groups R_{10}-R_{12} can also represent a $COOR_{17}$ group,
- R_{13} represents a lower alkyl group, a cycloalkyl group, an aryl group, a heterocycle, an arylalkyl group, a heteroarylalkyl group, a heterocycloalkyl group, a cycloalkylcarboxy group, an alkyl-$COOR_{17}$ group, an alkoxyalkyl group, an imidazopyridinylalkyl group, a trifluoroalkyl group or a heteroarylthioalkyl group,

  it being understood that R_{13} cannot represent the methyl group or the ethyl group, in the case where A represents a phenyl, R_2 represents the hydrogen atom, G and J represent the CH group, R_3 represents NR_6COR_{13} or $-(NR_6)_{n'}-CONR_7R_{13}$ where R_6 and/or R_7 represent the hydrogen atom,

- n is 1 or 2; n' is 0 or 1, m, p, q, r, s and t are integers comprised between 0 and 2 inclusive, r, s and t not simultaneously being 0,
- Y represents a linear or branched alkylene chain, having 2 to 5 carbon atoms,
- J represents a C-R_{14} group or the nitrogen atom
- G represents a C-R_{15} group or the nitrogen atom
- R_6, R_{16} and R_{17}, which are the same or different, represent the hydrogen atom or a lower alkyl group,
- R_4, R_5, R_{14} and R_{15} taken individually represent the hydrogen atom, a halogen atom, a lower alkyl group, an alkoxy, alkylthio, alkylsulfonyl, alkylsulfoxide, trifluoromethyl, nitro, cyano, carboxy, alkylcarboxy, alkylamino or dialkylamino group,
- or, when G or J are not the nitrogen atom, the groups OR_1 and R_{14} and/or the groups R_{14} and R_5 and/or the groups R_{15} and R_5 and/or the groups R_{15} and R_4 can form, together with the aromatic ring to which they are attached, a ring saturated or not,

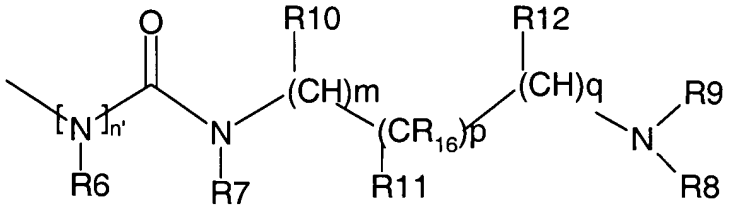
said alkyl, cycloalkyl, aryl, arylalkyl, heteroaryl, heterocycle, heterocycloalkyl, heteroarylalkyl, alkylaminoalkyl, alkoxy, alkoxyalkyl, alkylthio and alkylcarboxy groups, and said ring, being substituted or not,
and their salts, optical and geometrical isomers or their mixtures.

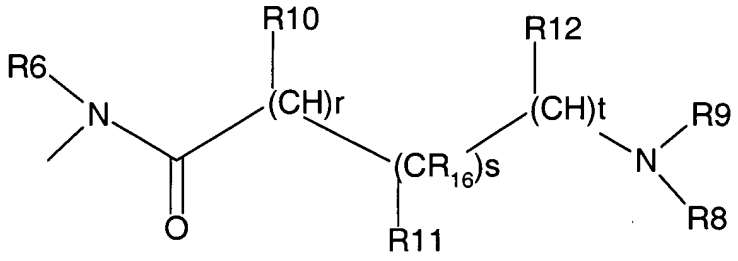
29. (new) The compound represented by general formula (I) according to claim 28, in which R1 represents a lower alkyl group and preferably a methyl or ethyl group.

30. (new) The compound represented by general formula (I) according to claim 28, in which:

- A represents a phenyl, a pyrimidine, a pyridazine or a pyrazine and/or
- n = 1 and/or
- n' = 1 and/or

- Y is an alkylene chain having 2 or 3 carbon atoms, preferably linear, and/or
- R_2 is a hydrogen atom, and/or
- R_3 represents a group selected from among the following :

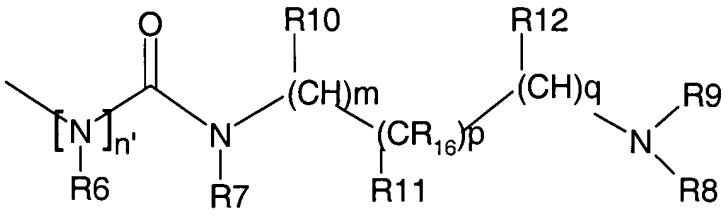




- R_4 is a hydrogen atom, and/or
- R_6 is a hydrogen atom, and/or
- G is a CH group, and/or
- J is a CH group.

31. (new) The compound represented by general formula (I) according to claim 28, in which:

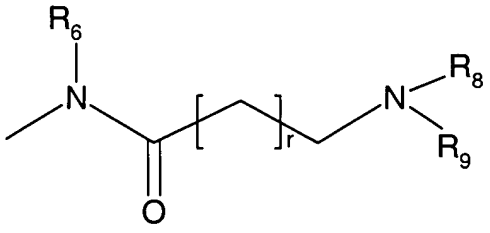
- A represents a phenyl, a pyrimidine, a pyridazine or a pyrazine and/or
- n = 1 and/or
- n' = 0 and/or
- Y is an alkylene chain having 2 or 3 carbon atoms, preferably linear, and/or
- R_2 is a hydrogen atom, and/or
- R_3 represents a group selected from among the following :



- R_4 is a hydrogen atom, and/or
- G is a CH group, and/or
- J is a CH group.

32. (new) The compound represented by general formula (I) according to claim 28, in which:

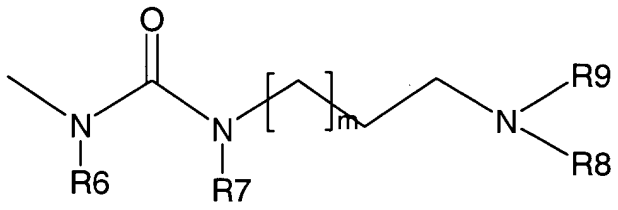
- A represents a phenyl, a pyrimidine, a pyridazine or a pyrazine and/or
- n = 1 and/or
- Y is an alkylene chain having 2 or 3 carbon atoms, preferably linear, and/or
- R_2 is a hydrogen atom, and/or
- R_4 is a hydrogen atom, and/or
- R_5 is a hydrogen atom, and/or
- G is a CH group, and/or
- J is a CH group, and/or
- R_3 represents a group selected from among the following :



where R_6 is a hydrogen atom or a lower alkyl group (in particular methyl) and r represents 0, 1 or 2 (in particular 1 or 2).

33. (new) The compound represented by general formula (I) according to claim 28, in which:

- A represents a phenyl, a pyrimidine, a pyridazine or a pyrazine and/or
- n = 1, and/or
- Y is an alkylene chain having 2 or 3 carbon atoms, preferably linear, and/or
- R_2 is a hydrogen atom, and/or
- R_4 is a hydrogen atom, and/or
- R_5 is a hydrogen atom, and/or
- G is a CH group, and/or
- J is a CH group, and/or
- R_3 represents a group selected from among the following :

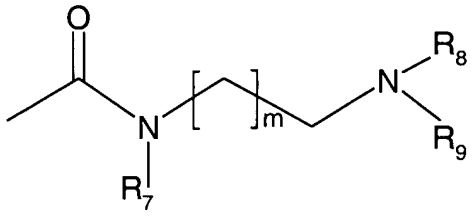


where R_6 is a hydrogen atom or a lower alkyl group (in particular methyl), R_7 is a hydrogen atom or a lower alkyl group (in particular methyl), and m is an integer comprised between 0 and 2 inclusive (in particular 0 or 1).

34. (new) The compound represented by general formula (I) according to claim 28, in which:

- A represents a phenyl, a pyrimidine, a pyridazine or a pyrazine and/or
- n = 1, and/or
- Y is an alkylene chain having 2 or 3 carbon atoms, preferably linear, and/or
- R_2 is a hydrogen atom, and/or
- R_4 is a hydrogen atom, and/or
- R_5 is a hydrogen atom, and/or

- G is a CH group, and/or
- J is a CH group, and/or
- R_3 represents a group selected from among the following :



where R_7 is a hydrogen atom or a lower alkyl group (in particular methyl) and m represents 1 or 2.

35. (new) The compound represented by general formula I according to claim 28, in which R3 represents a $-NR_6-COR_{13}$ or $-(NR_6)_{n'}-CONR_7R_{13}$ group, with R_{13} representing a cycloalkyl group, a heterocycle, an arylalkyl group, a heteroarylalkyl group, a heterocycloalkyl group, an alkylcarboxy group, a cycloalkylcarboxy group, an alkyl-$COOR_{17}$ group, an imidazopyridinylalkyl group, a trifluoroalkyl group or a heteroarylthioalkyl group.

36. (new) The compound represented by general formula I according to claim 28, in which R3 represents a $-CONR_7R_{13}$ group, with R_{13} representing a cycloalkyl group, a heterocycle, an arylalkyl group, a heteroarylalkyl group, a heterocycloalkyl group, an alkylcarboxy group, a cycloalkylcarboxy group, an alkyl-$COOR_{17}$ group, an alkoxyalkyl group, an imidazopyridinylalkyl group, a trifluoroalkyl group or a heteroarylthioalkyl group.

37. (new) The compound represented by formula (I) according to claim 28, in which A represents a phenyl, possibly substituted.

38. (new) The compound represented by formula (I) according to claim 28, in which Y is an alkylene chain containing 2 or 3 carbons.

39. (new) The compound according to claim 28, selected in the group consisting of compounds of examples Nos. 9 to 46, and salts thereof.

40. (new) The compound according to claim 28, selected in the group consisting of compounds of examples Nos. 47 to 67, and salts thereof.

41. (new) The compound according to claim 28, selected in the group consisting of compounds of examples Nos. 72 to 102 and 104 to 106, and salts thereof.

42. (new) The compound according to claim 28, selected in the group consisting of compounds of examples Nos. 112 to 119, and salts thereof.

43. (new) The compound according to claim 28, selected in the group consisting of the following:
2-(4-{3-[3-(1-ethyl-pyrrolidin-2-ylmethyl)-ureido]-phenyl}-piperazin-1-yl)-ethyl-N-(2-ethoxy-phenyl)carbamate,

2-(4-{3-[(1-methyl-1,2,5,6-tetrahydro-pyridine-3-carbonyl)-amino]-phenyl}-piperazin-1-yl)-ethyl-N-(2-ethoxy-phenyl)carbamate,
2-{4-[3-(3-amino-propionylamino)-phenyl]-piperazin-1-yl}-ethyl ester-N-(2-ethoxy-phenyl)carbamate,
2-(4-{3-[2-amino-3-(4-hydroxy-phenyl)-propionylamino]-phenyl}-piperazin-1-yl)-ethyl-N-(2-ethoxy-phenyl)carbamate,
2-[4-(3-{3-[3-(4-methyl-piperazin-1-yl)-propyl]-ureido}-phenyl)-piperazin-1-yl]-ethyl-N-(2-ethoxy-phenyl)carbamate,
2-(4-{3-[(4-pyrrolidin-1-yl-piperidine-1-carbonyl)-amino]-phenyl}-piperazin-1-yl)-ethyl N-(2-ethoxy-phenyl)carbamate,

2-(4-{3-[2-piperidin-1-yl-ethylcarbamoyl]-phenyl}-piperazin-1-yl)-ethyl-N-(2-ethoxy-phenyl)carbamate,
2-(4-{3-[(2-dimethylamino-ethyl)-methyl-carbamoyl]-phenyl}-piperazin-1-yl)-ethyl-N-(2-ethoxy-phenyl)carbamate, and the salts thereof.

44. (new) Intermediate compounds useful for preparing products according to claim 28 which are ethyl 3-{4-[2-(2-ethoxy-phenylcarbamoyloxy)-ethyl]-piperazin-1-yl}-benzoate, sodium 3-{4-[2-(2-ethoxy-phenylcarbamoyloxy)-ethyl]-piperazin-1-yl}-benzoate or one of the addition salts of same.

45. (new) A pharmaceutical composition comprising at least one compound according to claim 28.

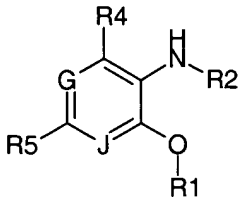
46. (new) The pharmaceutical composition according to claim 45, for the treatment or prophylaxis of diseases involving the 5-HT4 receptor.

47. (new) The pharmaceutical composition according to claim 45, for the treatment or prophylaxis of gastrointestinal disorders, central nervous system disorders, cardiac diseases, urological diseases, pain or migraine.

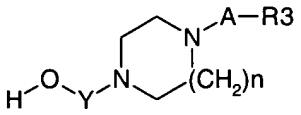
48. (new) A method of treatment or prophylaxis of the human or animal body by administering, into a human or animal body in need of such treatment, an effective amount of at least one compound according to claim 28.

49. (new) A method for treating gastrointestinal disorders, central nervous system disorders, cardiac diseases, urological diseases, pain or migraine, by administering into a mammal, more particularly a human, in need of such treatment an effective amount of at least one compound according to claim 28.

50. (new) A method for preparing a compound according to claim 28, wherein a product represented by formula (II) is reacted with a product represented by formula (III):



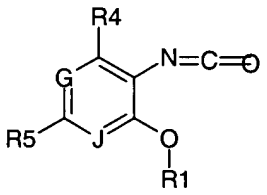
(II)



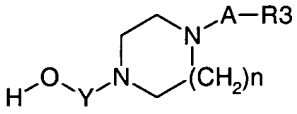
(III)

wherein the groups R1, R2, R3, R4, R5, A, Y, J, G and n are defined as in claim 28, in the presence of a carbonyl donor reagent, preferably triphosgene, and the resulting product is recovered.

51. (new) A method for preparing a compound according to claim 28, wherein a product represented by formula (IV) is reacted with a product represented by formula (III):



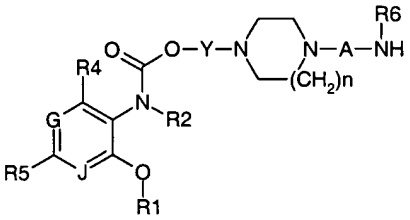
(IV)



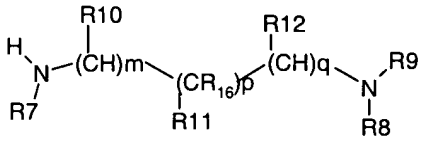
(III)

in which the groups R1, R3, R4, R5, A, Y, J, G and n are defined as in claim 28, in an aprotic solvent, preferably tetrahydrofuran.

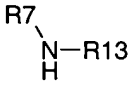
52. (new) A method for preparing a compound according to claim 28, wherein a product represented by formula (V) is reacted with a product represented by formula (VI) or (VII) :



(V)



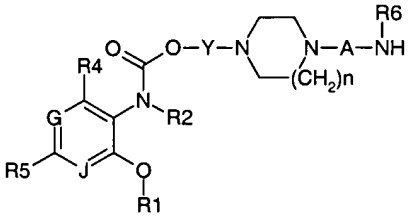
(VI)



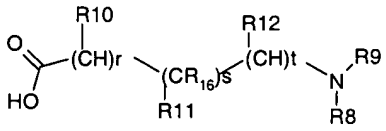
(VII)

in which the groups R1-R13, R16, A, Y, J, G and n, m, p, q are defined as in claim 28, in an aprotic solvent, preferably tetrahydrofuran, in the presence of a carbonyl donor reagent, preferably triphosgene.

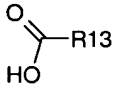
53. (new) A method for preparing a compound according to claim 28, wherein a product represented by formula (V) is reacted with a product represented by formula (VIII) or (IX) :



(V)



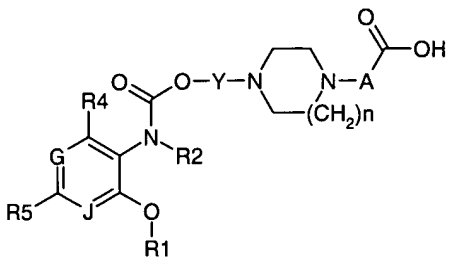
(VIII)



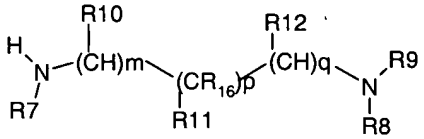
(IX)

in which the groups R1-R6, R8-R13, R16, A, Y, J, G and n, r, s and t are defined as in claim 28, in an aprotic solvent preferably tetrahydrofuran, in the presence of a classical coupling agent, preferably DCC on a solid support or EDCI.

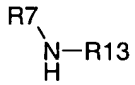
54. (new) A method for preparing a compound according to claim 28, wherein a product represented by formula (X) is reacted with a product represented by formula (VI) or (VII) :



(X)



(VI)



(VII)

in which the groups R1-R5, R7-R13, R16, A, Y, J, G and n, m, p and q are defined as in claim 28, in an aprotic solvent preferably tetrahydrofuran, in the presence of a classical coupling agent, preferably DCC on a solid support or EDCI.